

Parenting Styles, Family Characteristics, and Teacher-Reported Behavioral Outcomes in Kindergarten

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Abstract

It is well established that parenting influences child behavior at home, but less is known about the associations between parenting and teacher reports of child behavior at school, an environment more distal from the home context. This study investigated the presence of authoritarian, authoritative, permissive, and uninvolved parenting styles (PS) in a community sample of 321 parents with kindergarteners ($M_{\text{age}} = 5.45$ years) in the Northwestern United States. This study analyzed (1) which PS were present, (2) if PS was associated with family characteristics, (3) if teacher reported behavior problems in spring of children's kindergarten year varied by PS, and (4) whether associations between PS and child behaviors were moderated by parenting stress. Study hypotheses were that PS would be associated with family characteristics, that teacher reported child behaviors would differ by PS, and that parenting stress would moderate the relationship between PS and behavior problems at school. Results indicated all PS were present. Chi-squares and ANOVA's identified that PS were significantly associated with parenting stress and child problem behaviors. ANOVAs determined differences in parenting stress and problem behaviors depending on PS. ANOVAs revealed parenting stress moderated the relation between PS and child problem behavior. Few studies to date have analyzed the presence of all four PS among kindergarteners and the relationship this has with teacher-reported classroom behavioral concerns. This study sought to fill this gap as results have implications for targeted parenting prevention interventions to promote children's social and behavioral adjustment during the transition to elementary school.

Keywords: parenting styles, teachers, child behavior problems, parenting stress, kindergarten

Highlights:

- Parents with an uninvolved PS demonstrated higher parenting stress than authoritative or permissive parents; authoritative PS had the lowest parenting stress
- Teachers reported higher problem behaviors in children with parents with uninvolved PS than authoritative or permissive PS
- Higher levels of parenting stress was related to more teacher-reported child problem behaviors

Parenting Styles, Family Characteristics, and Teacher-Reported Child Behavioral Outcomes in Kindergarten

Parenting styles (PS) have been shown to have a significant impact on children's development (Baumrind & Mccandless, 1971), and a direct effect on child behaviors in the home environment (Muñoz-Silva et al., 2017). Parenting style is defined as a set of attitudes, goals, and patterns of parenting practices, which are thought to create an emotional climate for the parent-child relationship (Wood et al., 2003). The most influential research on PS is rooted in Baumrind's (1967) original conceptualizations of authoritarian, authoritative, and permissive PS and Maccoby and Martin's (1983) uninvolved PS. The early childhood years have a significant effect on children and parents, and is a critical time for the prevention of later mental health concerns (Izett et al., 2021). This time also has an effect on children's experiences in the classroom, as different PS have been found to have different academic outcomes (Checa et al., 2019; Wang et al., 2021). While some studies to date have investigated links between teacher reports of problem behaviors and parenting practices (Curhan et al., 2019; Miner & Clarke-Stewart, 2008; Roubinov et al., 2020; Shumow et al., 1998), there is a need to investigate these links comparatively among all four PS in a community sample of kindergarteners. While this study analyzes patterns prior to the COVID-19 pandemic, understanding the connections between different PS and social-behavioral adjustment in school is especially salient.

Parenting Styles

There are four primary PS defined in the literature, including authoritarian, authoritative, permissive, and uninvolved (Baumrind, 1967; Maccoby & Martin, 1983). Authoritarian PS involves attempting to shape, control, and evaluate a child's behavior, often using punitive and forceful measures such as threats and criticism when a child deviates from the "correct conduct" (e.g. "I'm going to spank you if you don't start listening"; Baumrind, 1968; Dehart et al., 2006). Evidence suggests authoritarian parents may perceive their child's behaviors as intentional attempts to bother the parent, which can lead to more coercive parenting practices (Crouch et al., 2017), and child maladjustment (Delvecchio et al., 2020). Authoritative PS involves a parent directing a child by sharing their reasoning behind instructions and encouraging verbal give and take (Baumrind, 1968). Parents provide support towards their children while also having clearly defined rules for appropriate behavior (Dehart et al., 2006). Authoritative parenting has been identified as having the best outcomes for children (Delvecchio et al., 2020; Howenstein et al., 2015; Luyckx et al., 2011), and this PS has been associated with the lowest levels of inconsistent discipline, and high levels of monitoring (Luyckx et al., 2011), positive coping strategies, and improved family adaptation (Tancred & Greeff, 2015).

Permissive PS involves a parent being nonpunitive and affirming towards the child's impulses, desires, and actions, allowing their child to regulate their own behaviors, and not presenting themselves as being responsible for shaping the child's behavior (Baumrind, 1968; Fletcher et al., 2008; Luyckx et al., 2011). Research has found that although these parents can be affectionate, failing to regulate a child's behavior can lead to low self-esteem as children do not learn appropriate forms of self-regulation (Dehart et al., 2006). Parents engaging in this style may prefer to be viewed as a friend instead of as a parent, may not have much concern for rules or structure in the home, and may place their own needs and desires before those of their child (Cox et al., 2018). Uninvolved (or rejecting) PS can be defined as having low levels of control and demands on a child, while also having low levels of warmth and responsiveness (Heberle et al., 2015; Spera, 2005). Parents with an uninvolved PS have been found to have poorer family management skills (Luyckx et al., 2011) and more punitive discipline strategies (Fletcher et al., 2008).

The prevalence rates of different PS in the population are difficult to ascertain for a number of reasons. For one, since Baumrind's development of the PS categories, others have critiqued her work and conceptualized PS in different ways (e.g. positive parenting, psychologically controlling parenting, negative/harsh parenting; Kawabata et al., 2011). Other authors have simply discriminated between positive parenting practices (e.g. parental positivity and reinforcement) and negative parenting practices (e.g. negativity and inconsistency; Clark & Frick, 2018). Therefore, while there are similarities between PS categories across different studies, identifying prevalence rates for one PS over another becomes challenging. Additionally, the chosen PS of a parent can change over time depending on the life stage of their child. For example, Schroeder and Mowen (2014) found that PS transitions can occur in adolescence and that the most common PS shifts were from authoritative parenting to permissive parenting, indicating that parents decreased in their levels of demandingness of their children upon transitioning to adolescence (Schroeder & Mowen, 2014). Though prevalence rates of various PS is difficult to identify, the PS a parent chooses to utilize has implications for their children's social, behavioral, and developmental outcomes (Wang et al., 2021).

Child Problem Behaviors

PS may influence child developmental outcomes. For example, the characteristics of authoritarian PS have been linked with more externalizing and internalizing problems in children (Fletcher et al., 2008). Specifically, it has been associated with a lack of independence (Baumrind & McCandless, 1971), less cooperative behavior (Howenstein et al., 2015), and more anxiety and shyness (Wood et al., 2003). Authoritative parenting has been associated with more desirable child behavior including more social responsibility, happier dispositions, greater

emotional control and regulation, improved social skills, and less relational aggression (Howenstein et al., 2015; Kawabata et al., 2011; Luyckx et al., 2011).

Permissive parenting has been associated with a lack in child social responsibility, less independence, increases in antisocial behavior over time, and more externalizing problems when punitive discipline is used (Baumrind & Mccandless, 1971; Fletcher et al., 2008; Luyckx et al., 2011). This could be related to letting the child make decisions and attempting to keep the child happy through bribery (Baumrind & Mccandless, 1971; Howenstein et al., 2015). Uninvolved parenting has been associated with higher levels of problem behavior in toddlers and in later childhood (Jones Harden et al., 2014), with increased relational aggression (Kawabata et al., 2011) and high levels of externalizing behavior problems (Fletcher et al., 2008). Research has found that this PS is associated with increased child problem behavior for parents who experience multiple risk factors, including heightened parenting stress (Jones Harden et al., 2014). Thus, there is an important link between parenting stress and PS (Hutchison et al., 2016), especially among high risk families. Less is known about the associations between PS and child adjustment in normative community samples of young children.

Family Contextual Factors

There are a variety of factors in the family's environment and context that can influence parent behaviors and PS (Heberle et al., 2015). In particular, a parent's individual experiences of parenting stress, parent access to socioeconomic resources (e.g. education level and income), and child specific factors (e.g. child problem behaviors and disability status), have all been linked to differences in parenting styles and disciplinary practices. Stress experienced within the parenting role is distinct from stress experienced within other areas of life, and the day-to-day strain of parenting is an important aspect of mental health and functioning for parents, children, and the parent-child relationship (Deater-Deckard, 2004). High parental stress has been linked to lower levels of parent self-efficacy, which has been found to predict maternal discipline style after controlling for other risk factors (Bloomfield & Kendall, 2012; Sanders & Woolley, 2005). Parenting and child behavior challenges additionally have a bidirectional relationship where an adult's parenting choices and a child's behavior mutually influence one another (Pearl et al., 2014; Serbin et al., 2015). This bidirectional relationship of parenting with child problem behaviors has additionally been found with families with fewer socioeconomic resources (Pearl et al., 2014), and for parents of children with disabilities (Hickey et al., 2020; Zaidman-Zait et al., 2014). Understanding the relationships between a

parent's family and contextual factors as well as their experiences of parenting stress can help to promote an understanding their PS.

Parent education and income levels and stressors have been found to be associated with parenting stress (Ayoub et al., 2011), parenting behaviors, and child outcomes. For example, maternal education level has been found to be negatively associated with harsh parenting, and positively associated with positive parenting (Carr & Pike, 2012) and maternal sensitivity (Heberle et al., 2015; Raviv et al., 2004). Parents with less than a high school education, less support, and fewer resources have been found to use authoritarian and permissive PS, while authoritative parents are more likely to have a higher level of education (Aunola et al., 1999; Coolahan et al. 2002). Parent education has also been associated with negative child social and behavioral outcomes (Pettit et al., 2009). Parenting stress and negative economic events have been found to predict children's internalizing problems, whereas parenting stress and general life stress have been found to predict children's externalizing problems (Puff & Renk, 2014). Overall, parents experiencing economic stress have been found to be less likely to feel supported in their parenting role, set limits, be satisfied with their own parenting, and engage in strong communication (Puff & Renk, 2014). This in turn can affect the parent-child relationship (Pearl et al., 2014), and the parent's chosen PS.

Differences in parenting stress have been found to be associated with PS and child disability (Hutchison et al., 2016; Zaidman-Zait et al., 2014). Hutchinson and colleagues (2016) found that parents of children with disabilities reported more parenting stress than those with typically developing children, and that difficulties in child executive functioning was associated with greater authoritarian and permissive parenting as it may be easier for parents in this context to give in to child demands or harshly punish. Notably, parent distress has been found to predict child internalizing and externalizing behaviors in children with disabilities (Zaidman-Zait et al., 2014). As authoritative parenting can be challenging to implement with children with disabilities, parents may decrease their use of authoritative parenting practices over time (Woolfson & Grant, 2006). Overall, there is a notable relationship between family contextual factors such as parenting stress, parent education and income, and child behaviors and disability status. In particular, socioeconomic stressors and challenges with their children greatly impact parenting stress levels and their parenting strategies with their children. Understanding how these contextual factors and how parenting stress in particular influence PS can promote further understanding of how to best support families with children entering kindergarten.

Teacher Experiences of Problem Behaviors

School environments are important settings for children's social and behavioral development (Wang et al., 2021). The transition to kindergarten is a significant milestone for children, and teachers and peers have a significant role in child developmental outcomes in the classroom (Wang et al., 2021; Welchons & McIntyre, 2017). Previous research has found links between children's adjustment to the classroom and their parent's level of attachment, with detached parents having children with the poorest teacher-child relationships (Paschall et al., 2015). Parenting has been found to be a moderator between child risk (e.g. maternal depression, residential instability, negative life events, household density) and their social-emotional development and academic readiness in pre-school, indicating that despite difficult family contextual factors, positive parenting practices can promote child preparedness for school (Ruberry et al., 2018). Parenting interventions focused on establishing effective routines, increasing positive reinforcement and consistency, and selectively ignoring mild misbehavior have been found to have benefits not only on parenting practices, but also on teacher ratings of child problem behaviors in the classroom for parents with children in Pre-K (Brotman et al., 2011).

Notably, for children from a community sample, having higher levels of problem behaviors was linked with higher reporting discrepancy and low levels of agreement between parent and teacher reports of problem behaviors in the classroom (Gross et al., 2004). Discrepancies in parent and teacher reports of child problem behaviors are not uncommon (Rescorla et al. 2014) and have been found to be related to parent levels of distress (Chen et al., 2017), and a teachers conflictual relationship with the child and difficulty identifying the child's internalizing problems (Berg-Nielsen et al., 2011). Research has found that teachers emotional support of their students had positive effects on childrens social skill development, however this was not always the case for childrens problem behaviors (Wang et al., 2021). Problem behaviors in the classroom can be highly challenging for teachers, and teachers often report spending too much time focused on these problem behaviors (Shen et al., 2009). Conflict between teachers and young children has been linked with child problem behaviors, teachers perceptions of workload stress, classroom instructional practices, and the classroom/school relationship (Mantzicopoulos, 2005). While research has found that different parenting behaviors are connected to child problem behaviors at home and in the classroom setting (Brotman et al. 2011; Ruberry et al., 2018), a greater focus on teachers reports of child problem behaviors in the classroom and the relationships of these problem behaviors to each of the four PS is warranted as this has implications for how children adapt to the classroom setting in kindergarten.

Study Purpose

The current study included baseline data for a community sample of families with children in kindergarten prior to receiving any intervention, and sought to investigate the presence of and associations between PS, parent and child characteristics and contextual influences, and teacher reported child behavioral problems. The study included participants involved in a parent study focused on the efficacy of a family intervention on child emotional and behavior problems in kindergarten and early elementary school (Stormshak et al., 2021). The current study is unique from other studies conducted from the same dataset and other prior studies, as it examined all four PS within the same group and investigated the relationship of these PS with teachers perceptions of young children's behavioral outcomes in a community sample of newly schooled children. Understanding the presence and relationship of PS with teacher-reported children's behavior outcomes, parenting stress, and family wellbeing among this population can support improved family and teacher experiences of the transition to kindergarten, as well as promote assessment and interventions to foster positive adjustment to kindergarten entry.

In order to better understand the relationship between PS and teacher reported behavioral concerns among this newly schooled population, the current study examined the following research questions: (1) How common are the authoritarian, authoritative, permissive, and uninvolved parenting styles in a community sample of families with children in kindergarten? (2) Are authoritarian, authoritative, permissive, and uninvolved parenting styles associated with parent and child characteristics and contextual factors? (3) Do teacher-reported child behavioral outcomes differ by parenting style? (4) Are associations between parenting styles and child behavior outcomes moderated by parenting stress? We hypothesized that the authoritative PS would be less frequent than authoritarian or permissive PS, and that uninvolved parents would not be present in the sample due to the presence of these parents in the study and the young age of the children. We hypothesized that PS would be associated with parenting stress, parent education level and income, and child disability status as these associations have been significant in clinical populations and with older children. We hypothesized that teacher-reported child behaviors would differ by PS, with the most positive outcomes for children with authoritative parents, and finally that parenting stress would moderate the relationship between PS and child behaviors. Investigating these questions will promote the understanding of challenges parents, teachers, and children may experience when starting school.

Method

Participants and Procedures

This study included 321 kindergarteners and their parents and teachers from a community in the Pacific Northwestern United States (see Table 2 for demographic information). This study uses the term “parents” to include anyone who indicated they were a primary caregiver for the child. Data were collected as part of an ongoing longitudinal preventative randomized controlled trial intervention study conducted in the Pacific Northwestern region of the United States. Children and their parents were recruited from five elementary schools at kindergarten entry. Study recruiters presented on the study during parent introduction to kindergarten meetings at the schools, and interested parents put their names and contact information on a sign-up sheet. Parents were later called and provided more information about study participation. Families who agreed to participate signed informed consents after the study was explained in detail and family questions were answered. One primary caregiver and one target child engaged in study activities, including home-based interviews, videotaped observations, and parent-completed questionnaires. Additionally, the teachers of study participants were contacted and asked to complete a short questionnaire about the target child’s behaviors in school. All families in the study were randomly assigned to either the intervention or control condition. Families in the intervention received the Family Check-Up (FCU; Dishion & Kavanagh, 2003) modified for delivery at early elementary school (Stormshak et al., 2021). The current study used participant baseline data, before families had received the intervention.

Measures

Demographic Survey

Parents reported on parent and child age, sex, race/ethnicity, parent education, parent employment, family income, and child disability during a home-based interview.

Parenting

The Parenting Young Children (PARYC; McEachern et al., 2012) measure is a 21-item parent questionnaire asking about quality time, proactive parenting, limit setting, and positive parenting. Example items included “Did you stick to your rules and not change your mind?” and “Did you notice and praise your child’s good behavior?” Composite scores for limit setting (7 items; Cronbach’s $\alpha = .79$) and positive parenting (2 items; Cronbach’s $\alpha = .78$) were used in this study.

Monitoring and Family Routines

The Monitoring and Family Routines scale (Child and Family Center, 2005) is a 5-item self-report about establishing consistent monitoring and family routines at home. Parents responded using a 5-point scale (0 = never

to 4 = very often). An example item was “How often do you make sure your child is up on time for school?” The composite score was used ($\alpha = .75$).

Parenting Warmth

The Adult Child Relationship Scale (ACRS; Pianta & Nimetz, 1991), an adaptation of the Pianta (2001) Student Teacher Relationship Scale, was used to measure family relationships and parenting warmth. Specifically, the 9-item Positive Relationship composite score was used to measure parenting warmth ($\alpha = .79$). Example items included “if upset, this child seeks comfort from me”, and “this child likes telling me about him/herself”, and were rated on a 5-point scale (0 = definitely not to 4 = definitely).

Parenting Stress

The Perceived Stress Scale (PSS; Cohen et al., 1983), a 14-item self-report questionnaire, was used to assess parent stress and support in parenting their child within the last month. Items used a 5-point scale (0 = never to 4 = very often), and examples included “How often have you felt nervous or stressed?” and “How often have you been able to control irritations in your life?” The composite score was used ($\alpha = .84$).

Child Behavior Problems at Home

Parents completed the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997), a 26-item measure focused on child conduct problems, hyperactivity, emotional problems, peer problems, and prosocial behaviors. Items were measured on a 3-point scale (0 = not true to 2 = certainly true). Example items included “My child often loses their temper” and “My child is generally liked by other youth”. The total problems composite score was used ($\alpha = .85$).

Child Behavior Problems at School

The Strengths and Needs Assessment (Moore et al., 2016) was a 9-item questionnaire that asked teachers about child behavioral concerns at school during the spring. Items were measured on a 4-point scale (0 = no concern, 3 = serious concern). Example items included “This student follows directions”, and “This student demonstrates positive social skills”. The raw sum of the total score was used in this study ($\alpha = .93$).

Statistical Analyses

As there was no direct measure of PS included in the parent study, we categorized participants into each of the four PS based on their critical features defined by Baumrind (1967) and Maccoby and Martin’s (1983). PS features assessed included limit-setting (establishing rules and maintaining consistency), monitoring (day to day

activities such as morning routines and checking homework), positive parenting (praising and rewarding good behavior), and parenting warmth (connection between parent and child). PS features were dichotomized based on median splits in the data ($< \text{median} = \text{low}$, $\geq \text{median} = \text{high}$) to identify levels of each parenting behavior. Scores demonstrated that overall, parents self-reported that they engaged in high levels of limit-setting ($Mdn = 3.0$, $M = 3.1$, $SD = 0.5$), monitoring ($Mdn = 3.9$, $M = 3.7$, $SD = 0.4$), positive parenting ($Mdn = 3.5$, $M = 3.3$, $SD = 0.6$), and parenting warmth ($Mdn = 3.8$, $M = 3.7$, $SD = 0.5$) with their children. This was expected given the age of the children and the non-clinical nature of this sample.

Once split scores for indicators were determined, we categorized participants into each PS based on the following criteria (see also Table 1). Authoritarian parents were defined as having high levels of limit-setting or monitoring behaviors, and low levels of positive parenting or parenting warmth. Authoritative parents were defined as having high levels limit setting or monitoring behaviors, and high levels of both positive parenting and parenting warmth. Permissive parents were defined as having low levels of limit-setting or monitoring, and high levels of positive parenting or parenting warmth. Uninvolved parents were defined as having low levels of all four characteristics.

[TABLE 1 HERE]

A group of parents were categorized into two or more parenting groups, and therefore a hierarchy was created to conservatively prioritize parents into styles with more parenting skills and better child outcomes as this was a non-clinical sample of parents. The authoritative PS was prioritized as it has been linked to have the best outcomes for children (Howenstein et al., 2015), followed by permissive parenting as it has been associated with some negative child outcomes (Fletcher et al., 2008). Authoritarian parenting style was prioritized last as it has the most extensive research on negative child outcomes (e.g. Delvecchio et al., 2020). As uninvolved parents scored low across all parenting characteristics there was no overlap with the other styles, and therefore they were not included in the hierarchy. Finally, frequency distributions were examined to obtain the percent of the sample within each PS.

To address the second research question, chi-square analyses and one-way ANOVAs were conducted to evaluate if PS were associated with different parent and child characteristics including parent race/ethnicity, income, and education, and child disability status. Effect sizes were computed using Cohen's d , which was calculated by taking the mean difference in scores and dividing this by the standard deviation of the measure. In the third research question, one-way ANOVAs were used to test whether child behavior concerns in spring of their kindergarten year

differed by PS. Finally, a two-way ANOVA was conducted to answer the fourth research question and examine if associations between PS and child outcomes were moderated by parenting stress.

Results

Preliminary Analyses

Parent Characteristics

Parent participants were primarily female (89.4%), an average of 33.9 years old ($SD = 6.32$), and a birth parent (96.2%). Consistent with the demographics of the region, the sample was predominantly white non-Hispanic (72.9%), followed by Hispanic (13.7%), multi-racial (7.8%), Asian (2.8%), Black (1.9%), and Native American (0.3%). Regarding education, 13.3% of parents had less than a high school education, 25.2% had graduated high school or had a GED, 24.6% had attended at least one year of college or specialized training, 10.6% had an Associate's degree or attended Junior college, 17.4% had graduated a 4-year college or university, and 8.7% had graduate professional training or a graduate degree. Many parents were employed full time (42.4%), and the average family income was between \$30,000-39,000 a year. Parenting stress levels were low to moderate, with a mean score of 1.44 ($SD = 0.53$) out of a possible score of 4 (1 = low, 2 = moderate, 3 = high, 4 = very high).

Child Characteristics

Children participants were an average of 5.45 years old ($SD = 0.50$), and over half (54.2%) were male. Children were predominantly white non-Hispanic (58.9%), followed by multi-racial (22.1%), Hispanic (13.4%), Asian (2.2%), Black (1.9%), and Pacific Islander (0.3%). Additionally, 16.5% of children received specialized services or supports at school (e.g., individualized education plan, 504 plan, behavior intervention plan). Parents reported that children in the sample had low levels of behavioral issues with a mean of 6.68 ($SD = 5.31$) out of a possible score of 52. Teacher reports revealed low levels of child problem behaviors, with a mean score of 5.48 ($SD = 6.45$) out of a possible score of 27.

[INSERT TABLE 2 HERE]

Primary Analyses

Parenting Styles

Based on the framework described in the analysis section above, parents were categorized into one of the four PS groups. The percentage of the sample categorized into each of the PS groups was as follows: authoritarian (20.6%), permissive (34.9%), authoritative (32.4%), and uninvolved (12.1%). PS groups were mutually exclusive.

Parenting Styles and Family Characteristics

Table 3 displays the family characteristics and grouping categories. Race/ethnicity was measured as white vs. non-white as the majority of parents in the sample were white. Family income was measured in the present study using categories containing \$10,000 increments. Income was dichotomized at above or below \$30,000 – \$39,000 as it roughly represents the federal poverty threshold for Medicaid for a family of four in the year the data were collected (People Keep, 2015). Parent education level was dichotomized as above or below some college (or specialized training) given that this categorization represented an educational experience distinct from high school only. Child disability was categorized as a child having an IEP, 504 plan, or behavior plan in school. Results of χ^2 test demonstrated no significant relationship between PS and parent race/ethnicity, $\chi^2(3, N = 321) = 3.79, p = .285$, PS and income, $\chi^2(3, N = 321) = 7.75, p = .051$, PS and parent education, $\chi^2(3, N = 321) = 2.99, p = .394$, or PS and child disability status, $\chi^2(3, N = 321) = 0.20, p = .978$.

[INSERT TABLE 3 HERE]

Next, one-way ANOVA analyses were utilized to assess the relation between PS and parenting stress and parent reported child behavior problems. Effect sizes were computed using Cohen's d . Here, $d = .20$ was considered a small effect size, $d = .50$ was considered a medium effect size, and $d = .80$ was considered a large effect size (Cohen, 1988, 1992). The one-way ANOVA evaluating the relationship between PS and parenting stress demonstrated a statistically significant relationship, $F(3, 321) = 9.12, p < .001$. Specifically, a Tukey post hoc multiple comparisons test revealed that uninvolved parents had higher levels of stress than authoritative (M difference = 0.5, $d = 0.95, p < .001$) and permissive (M difference = 0.3, $d = 0.50, p = .048$) parents. Both authoritarian (M difference = 0.3, $d = 0.50, p = .013$) and permissive (M difference = 0.2, $d = 0.45, p = .008$) parents demonstrated higher stress levels than authoritative parents. There was no statistically significant difference in stress between authoritarian and permissive (M difference = 0.02, $d = 0.05, p = .992$) or uninvolved parents (M difference = -0.2, $d = -0.45, p = .133$). Overall, authoritative parents demonstrated the lowest stress levels compared to parents in all other parenting styles.

The one-way ANOVA evaluating the relationship between PS and parent reported child problem behaviors demonstrated a statistically significant relationship $F(3, 321) = 13.59, p < .001$. A Tukey post hoc multiple comparisons test revealed that uninvolved parents had children with higher levels of problem behaviors than children of authoritarian (M difference = 2.9, $d = 0.55, p = .024$), authoritative (M difference = 5.7, $d = 1.07, p <$

.001), or permissive ($M\ difference = 2.8, d = 0.54, p = .013$) parents. Both authoritarian parents ($M\ difference = 2.8, d = 0.52, p = .003$) and permissive parents ($M\ difference = 2.8, d = 0.53, p < .001$) had children with statistically significantly higher levels of problem behaviors than children of authoritative parents. There was no statistically significant difference in child problem behaviors between authoritarian and permissive parents ($M\ difference = 0.1, d = 0.01, p = 1.00$). Overall, children of authoritative parents had fewer problem behaviors compared to children of parents with any other parenting style.

Parenting Styles and Teacher Reported Child Behavioral Outcomes

A one-way ANOVA was conducted to examine if child behavior concerns in spring of their kindergarten year differed by PS (see Table 4). Mean differences of teacher reports of child behavior problems indicated that uninvolved parents had children with more behavioral concerns than children of permissive ($M\ difference = 3.8, d = 0.59, p = .019$) or authoritative parents ($M = 4.3, d = 0.66, p = .006$). The mean difference in teachers' levels of concern between the children of uninvolved and authoritarian parents was not statistically significant ($M\ difference = 2.6, d = 0.40, p = .249$). Additionally, there was no statistically significant difference between authoritarian and authoritative ($M\ difference = 1.7, d = 0.27, p = .361$) or authoritarian and permissive ($M\ difference = 1.2, d = 0.19, p = .645$) parents. Finally, while authoritative parents had children with lower teacher reported behavior concerns than uninvolved parents, there was no statistically significant relationship when compared to permissive ($M\ difference = -0.5, d = -0.08, p = .948$) parents.

[INSERT TABLE 4 HERE]

Moderating Effect of Parenting Stress

A two-way ANOVA was conducted to examine the results of the fourth research question, “are associations between parenting styles and child outcomes moderated by parenting stress?” A Tukey post hoc multiple comparisons test evaluated all pairwise contrasts between parenting styles, which were examined in the case of a significant interaction effect. Additionally, to facilitate the interpretation of the results of different interaction effects, the continuous moderator of parenting stress was mean-centered (Jaccard & Turrisi, 2003). Results were reported by analyzing the moderation effect of parent characteristics on teacher reported child behavior problems. The omnibus test for PS by stress interaction term was statistically significant ($F[3, 267] = 2.84, p = .039$). Therefore, the interaction effect was decomposed, and specific contrasts generated by the interaction term

were interpreted. The two-way ANOVA procedure was run multiple times with different reference categories in order to obtain all pairwise contrasts (Figure 1).

First, results indicated that differences in teacher concern scores between uninvolved and authoritative PS varied by parenting stress ($t = 2.81, p = .005$). Specifically, the model estimated difference in child behavior concerns between uninvolved and authoritative parents was -8.8 ($d = -2.91$) when parents reported average stress and -1.4 ($d = -0.21$) when parents reported stress one unit greater than average stress. Second, the results indicated that differences in teacher concern scores between uninvolved and authoritarian PS varied by parenting stress ($t = 2.26, p = .024$). Specifically, the model estimated difference in child behavior concerns between uninvolved and authoritarian parents was -0.2 ($d = -0.03$) when parents reported average stress and 6.2 ($d = 1.0$) when parents reported stress one unit greater than average. Third, results indicated that differences in teacher concern scores between uninvolved and permissive PS varied by parenting stress ($t = 2.65, p = .009$). Specifically, the model estimated difference in child behavior concerns between uninvolved and permissive parents was -1.1 ($d = -0.17$) when parents reported average stress and 5.5 ($d = 0.9$) when parents reported stress one unit greater than average.

[INSERT FIGURE HERE]

Discussion

The present study sought to investigate the presence of authoritarian, authoritative, permissive, and uninvolved parenting styles among a normative community sample of families from the Pacific Northwestern region of the United States, and is one of the only studies to date to examine the relationship of all four parenting styles with teacher-reported child behavioral problems in a community sample of kindergarten children and their families. The study additionally sought to understand the associations and impact of these parenting styles with various child and family characteristics and risk factors, as well as the moderating influence of parenting stress on these relationships. Recognizing how parenting practices and mental health are associated with behavioral challenges in young children in a normative community sample is important for informing effective prevention practices (Izett et al., 2021). The study revealed interesting findings with implications for subsequent prevention and parent support efforts.

Study results revealed that all four parenting styles were present in the sample, with permissive being the most prevalent followed by authoritative, authoritarian, and uninvolved. As the statistical hierarchy first favored distributing parents into authoritative and then permissive PS when parents overlapped in PS groups, it increased the

likelihood of parents being distributed in either the authoritative or permissive parenting groups. Considering the non-clinical nature of the current sample, it was not surprising that many parents engaged in a permissive PS. Contrary to our hypothesis however, more parents engaged in an authoritative PS than authoritarian PS. This was somewhat surprising as engaging in authoritative parenting practices can be more difficult to achieve due to carefully balancing warmth and supportiveness with appropriate limit setting (Dehart et al., 2006). The presence of authoritarian PS was expected in this population, as having high levels of limit-setting and monitoring is appropriate for parenting kindergarten aged children (Webster-Stratton, 2005). However, while engaging in strong limit-setting and monitoring practices with children this age is important, the lack of warmth, positivity, and disengagement from interpersonal interactions is problematic, and may be a reflection of parents' negative perceptions of the reasons behind their child's challenging behaviors (Cox et al., 2018; Crouch et al., 2017), such as assuming their child is intentionally trying to misbehave. The presence of parents engaging in an uninvolved PS was unexpected as parents with this style may be less likely to participate in research. However, as this sample was non-clinical in nature, the manner in which parents engaged in their parenting behaviors on a daily basis may have different implications than for parents of children in high-risk samples.

Surprisingly, there were no significant associations between PS and parent race/ethnicity, parent education or income, or child disability status. While this is contradictory to previous research (Ayoub et al., 2011; Bloomfield & Kendall, 2012; Hutchison et al., 2016), it is possible that the sample did not have enough demographic variability to demonstrate statistically significant differences between groups. Results demonstrated significant associations between PS and both parenting stress and child problem behaviors. Consistent with the literature, authoritative parents were found to have the lowest levels of stress when compared to parents utilizing all other PS, and uninvolved parents demonstrated higher levels of stress compared to permissive and authoritative parents (e.g., Hutchison et al., 2016; Jones Harden et al., 2014). Being a low-risk sample, parents within this study had generally low to moderate levels of stress, which makes these findings and differences in stress between parent groups more meaningful. Authoritative parenting can be particularly challenging for parents to implement when they have children with higher behavioral problems and developmental delays (Woolfson & Grant, 2006). Additionally, uninvolved parents have been found to lack family management skills which leads to higher problem behaviors in children (Luyckx et al., 2011) and may contribute to increased stress. These findings revealed that even among a sample of parents with relatively low levels of stress and child problem behaviors, authoritative parents still

demonstrated the lowest levels of stress, and uninvolved parents experienced higher levels of stress when compared to permissive and authoritative parents.

Similar associations were found regarding parent reported child problem behaviors. Again, authoritative parents had children with fewer problem behaviors than children with parents using any other PS, and uninvolved parents had children with higher problem behaviors than all other parent groups. These results are consistent with past literature (e.g., Fletcher, 2008; Howenstein et al., 2015). Previous research has demonstrated that the harsh and negative parenting present in the authoritarian PS is associated with both externalizing (Fletcher et al., 2008) and internalizing behavior problems (Wood et al., 2003). Additionally, uninvolved parents tend to utilize more punitive discipline strategies with their children (Fletcher et al., 2008) which can lead to more externalizing issues (Luyckx et al., 2011). These findings demonstrate that even in a sample of children with few problem behaviors, notable differences exist in children's behaviors depending on their parent's PS.

PS was also found to predict teacher reported child behavioral problems. Here, uninvolved parents had children with higher behavioral concerns than children of permissive and authoritative parents, and authoritative parents had children with lower teacher reported behavior concerns than uninvolved parents. Therefore, even within a sample of children with low behavior problems who had almost a full year to adjust to the classroom setting, teachers were still experiencing different effects based on the parent's PS. Previous literature has demonstrated longer term problem behaviors in children with uninvolved parents (Jones Harden et al., 2014; Paschall et al., 2015). As teachers play a significant role in children's development and have reported challenges managing problem behaviors (Wang et al., 2021), finding that these behavioral challenges remain present for children with uninvolved parents has implications for additional supports teachers may need in the classroom. There were no statistically significant differences in the behaviors of children when comparing authoritative parents to the other parenting styles or among the other PS groups. The limited statistically significant results in this analysis were not consistent with the literature, but were not entirely surprising as both parent and teacher reports indicated very low problem behavior scores. Therefore there may not have been sufficient variability in scores to detect these differences.

The relationship between PS and teacher reports of child behavioral problems in the classroom was significantly moderated by parenting stress. Specifically, when uninvolved parents had had higher levels of stress, teachers reported significantly higher child problem behaviors when compared to children with parents of any other style. As uninvolved parenting stress level increased, teacher reported behavioral concerns also increased. This

finding is consistent with previous literature demonstrating that children of uninvolved parents have the most problematic child development and more externalizing behaviors, and that these problem behaviors may increase when uninvolved parents are experiencing higher levels of stress (Fletcher et al., 2008; Jones Harden et al., 2014). The result that parenting stress does not moderate the differences in behavior problems between authoritarian, authoritative, and permissive parenting styles is not congruent with previous research. It is possible that due to the generally low to moderate levels of stress and low levels of teacher reported child problem behaviors within the sample there was limited variability to detect differential effects on the children. As higher stress levels tend to push parents into using less effective parenting styles (Hutchison et al., 2016), it is possible that only the parents with the highest stress levels and weakest parenting skills had enough of an effect on their children's behaviors to be able to detect differences based on teacher report.

Implications

This study adds to the literature by demonstrating links between parenting stress, parent contextual factors, and teacher reported child behavioral outcomes. While data were collected prior to the COVID-19 pandemic, understanding the relationships between parenting and teacher experiences with child problem behaviors is important for supporting parents with children entering a structured classroom setting. Assessment of parents upon kindergarten entry could help teachers identify which parents have uninvolved parenting tendencies and potentially plan and implement interventions to support the kindergarten transition and provide families with resources to manage stressors. Targeting parenting stress and parent behaviors is particularly important if they are experiencing difficult contextual challenges such as economic instability (Puff & Renk, 2014), as parent mental health and wellbeing have long-term implications for child wellbeing (Izett et al., 2021). This information could additionally be used to support teachers in engaging with and managing students that may be more likely to exhibit behavioral challenges in the classroom.

Limitations

This study has several important limitations. First, the study was cross-sectional and did not allow for an understanding of changes in family behaviors over time. Second, there was no direct measure capturing or identifying PS among parents in the study. While the cut scores and hierarchy were based on evidence from the literature, relying solely on self-reported parenting behaviors creates a limitation. Despite this, many of the results in the study were congruent with previous research on differential outcomes based on parenting styles, which provided

some validation of study methods. The limited variability in some parent and child demographic characteristics may have led to difficulty identifying significant relationships among study variables. Finally, as classroom identification numbers were not tracked in the parent study for the first cohort of families, we did not account for clustering of families within classrooms in our analyses.

Future Directions

Future research should investigate the longitudinal impact of different PS on teacher perceptions of child behavior problems as children grow older, to evaluate the extent of these PS outcomes on children's classroom functioning. A similar study should be conducted that includes a more diverse population regarding race/ethnicity, as well as families with higher levels of parenting stress and child problem behaviors. This would allow for a more nuanced understanding of the results, and for an evaluation of how different family cultures and contexts impact PS and the parent-child relationship. Finally, to date there is limited research on how the relationships between PS, family characteristics, and teacher reported child behavioral outcomes may differ when children have same sex parents and when investigating the unique role of fathers (Lopez et al., 2019; Schofield, 2016). Having a better understanding of these family systems and parenting roles could allow for more inclusive clinical work and intervention programs in community mental health and school contexts.

References

- Aunola, K., Nurmi, J., Onatsu-Arviolommi, T., & Pulkkinen, L. (1999). The role of parents' self-esteem, mastery-orientation and social background in their parenting styles. *Scandinavian Journal of Psychology*, 40(4), 307-317.
- Ayoub, C., Vallotton, C., & Mastergeorge, A. (2011). Developmental pathways to integrated social skills: The roles of parenting and early intervention. *Child Development*, 82(2), 583-600.
- Baumrind, D., & Mccandless, B. R. (1971). Current patterns of parental authority. *Developmental Psychology*, 4(1), 1-103.
- Baumrind, D. (1968). Authoritarian vs. authoritative parental control. *Adolescence*, 1968, 3, 255-272.
- Baumrind, D. (1967). Child care practices anteceding three patterns of preschool behavior. *Genetic Psychology Monographs*, 75(1), 43-88.
- Berg-Nielsen, T. S., Solheim, E., Belsky, J., & Wichstrom, L. (2011). Preschoolers' psychosocial problems: In the eyes of the beholder? Adding teacher characteristics as determinants of discrepant parent-teacher reports. *Child Psychiatry and Human Development*, 43(3), 393-413. <https://doi.org/10.1007/s10578-011-0271-0>
- Bloomfield, L., & Kendall, S. (2012). Parenting self-efficacy, parenting stress and child behaviour before and after a parenting programme. *13*(4), 364-372.
- Brotman, L.M., Calzada, E., Huang, K.-Y., Kingston, S., Dawson-McClure, S., Kamboukos, D., Rosenfelt, A., Schwab, A., & Petkova, E. (2011). Promoting effective parenting practices and preventing child behavior problems in school among ethnically diverse families from underserved, urban communities: Promoting parenting practices and preventing child behavior problems. *Child Development*, 82(1), 258-276. <https://doi.org/10.1111/j.1467-8624.2010.01554.x>
- Carr, A., & Pike, A. (2012). Maternal scaffolding behavior: Links with parenting style and maternal education. *Developmental Psychology*, 48(2), 543-551.
- Checa, P., Abundis-Gutierrez, A., Perez-Duenas, C., & Fernandez-Parra, A. (2019). Influence of maternal and paternal parenting style and behavior problems on academic outcomes in primary school. *Frontiers in Psychology*, 10, 378-378. <https://doi.org/10.3389/fpsyg.2019.00378>

- Chen, Y., Hwang-Gu, S.-L., Ni, H.-C., Liang, S. H.-Y., Lin, H.-Y., Lin, C.-F., Tseng, Y.-H., & Gau, S. S.-F. (2017). Relationship between parenting stress and informant discrepancies on symptoms of ADHD/ODD and internalizing behaviors in preschool children. *PloS One*, 12(10), e0183467–e0183467. <https://doi.org/10.1371/journal.pone.0183467>
- Child and Family Center. (2005). *Parent Interview (FPIS)*. Unpublished instrument. Adapted from the PAL2 parent survey. Prevention Science Institute, University of Oregon, Eugene, OR, 97403.
- Clark, J. E., & Frick, P. J. (2018). Positive parenting and callous-unemotional traits: Their association with school behavior problems in young children. *Journal of Clinical Child and Adolescent Psychology*, 47(sup1), S242–S254. <https://doi.org/10.1080/15374416.2016.1253016>
- Cohen, J. (1992). A Power Primer. *Psychological Bulletin*, 112(1), 155-159.
- Cohen, J. (1988). Statistical power analysis for the behavioral sciences (2nd ed.). New Jersey: Lawrence Erlbaum.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24, 385-396.
- Coolahan, K., Mcwayne, C., Fantuzzo, J., & Grim, S. (2002). Validation of a multidimensional assessment of parenting styles for low-income African American families with preschool children. *Early Childhood Research Quarterly*, 17(3), 356-373.
- Cox, J., Kopkin, M., Rankin, J., Tomeny, T., & Coffey, C. (2018). The relationship between parental psychopathic traits and parenting style. *Journal of Child and Family Studies*, 27(7), 2305-2314.
- Crouch, J. L., Irwin, L. M., Milner, J. S., Skowronski, J. J., Rutledge, E., and Davila, A. L. (2017). Do hostile attributions and negative affect explain the association between authoritarian beliefs and harsh parenting?" *Child Abuse & Neglect* 67, 13-21.
- Curhan, A. L., Rabinowitz, J. A., Pas, E. T., & Bradshaw, C. P. (2019). Informant discrepancies in internalizing and externalizing symptoms in an at-risk sample: The role of parenting and school engagement. *Journal of Youth and Adolescence*, 49(1), 311–322. <https://doi.org/10.1007/s10964-019-01107-x>
- Deater-Deckard, K. (2004). *Parenting stress* (Current perspectives in psychology). New Haven, [Conn.]; London: Yale University Press.
- Dehart, T., Pelham, B. W., & Tennen, H. (2006). What lies beneath: Parenting style and implicit self-esteem. *Journal of Experimental Social Psychology*, 42(1), 1-17.

- Delvecchio, E., Germani, A., Raspa, V., Lis, A., and Mazzeschi, C. (2020). Parenting styles and child's well-being: The mediating role of the perceived parental stress." *Europe's Journal of Psychology*, 16(3), 514-31.
- Dishion, T. J., & Kavanagh, K. (2003). *Intervening in adolescent problem behavior: A family-centered approach*. New York: Guilford Press.
- Fletcher, A. C., Walls, J. K., Cook, E. C., Madison, K. J., & Bridges, T. H. (2008). Parenting style as a moderator of associations between maternal disciplinary strategies and child well-being. *Journal of Family Issues*, 29(12), 1724-1744.
- Goodman, R. (1997). The Strengths and Difficulties Questionnaire: A research note. *Journal of Child Psychology and Psychiatry*, 38(5), 581-586.
- Gross, D., Fogg, L., Garvey, C., & Julion, W. (2004). Behavior problems in young children: An analysis of cross-informant agreements and disagreements. *Research in Nursing & Health*, 27(6), 413-425.
<https://doi.org/10.1002/nur.20040>
- Heberle, A., Briggs-Gowan, M., & Carter, A. (2015). A person-oriented approach to identifying parenting styles in mothers of early school-age children. *Infant and Child Development*, 24(2), 130-156.
- Hickey, E. J., Bolt, D., Rodriguez, G., & Hartley, S. L. (2020). Bidirectional relations between parent warmth and criticism and the symptoms and behavior problems of children with autism. *Journal of Abnormal Child Psychology*, 48(6), 865-879. <https://doi.org/10.1007/s10802-020-00628-5>
- Howenstein, J., Kumar, A., Casamassimo, P., Mctigue, D., Coury, D., & Yin, H. (2015). Correlating parenting styles with child behavior and caries. *Pediatric Dentistry*, 37(1), 59-64.
- Hutchison, L., Feder, M., Abar, B., & Winsler, A. (2016). Relations between parenting stress, parenting style, and child executive functioning for children with ADHD or autism. *Journal of Child and Family Studies*, 25(12), 3644-3656.
- Izett, E., Rooney, R., Prescott, S. L., De Palma, M., & McDevitt, M. (2021). Prevention of Mental Health Difficulties for Children Aged 0-3 Years: A Review. *Frontiers in Psychology* 11. doi: 10.3389/fpsyg.2020.500361
- Jaccard, J. & Turrise, R. (2003). *Interaction effects in multiple regression, second edition*. Sage Publications.
- Jones Harden, B., Denmark, N., Holmes, A., & Duchene, M. (2014). Detached parenting and toddler problem behavior in early Head Start families. *Infant Mental Health Journal*, 35(6), 529-543.

- Kawabata, Y., Alink, L., Tseng, W., Van Ijzendoorn, M., & Crick, N. (2011). Maternal and paternal parenting styles associated with relational aggression in children and adolescents: A conceptual analysis and meta-analytic review. *Developmental Review, 31*(4), 240-278.
- Lopez, S., McWhirter, A. C., Rosencrans, M., Giuliani, N., & McIntyre, L. (2019). Father involvement with children with developmental delays. *Global Education Review, 6*(1), 40-62.
- Luyckx, K., Tildesley, E. A., Soenens, B., Andrews, J. A., Hampson, S. E., Peterson, M. & Duriez, B. (2011). Parenting and trajectories of children's maladaptive behaviors: A 12-year prospective community study. *Journal of Clinical Child and Adolescent Psychology: The Official Journal for the Society of Clinical Child and Adolescent Psychology, 40*(3), 468-478.
- Maccoby, E. E., & Martin, J. A. (1983). Socialization in the context of the family: Parent-child interaction. In Mussen, P. H. (Series ed.) and Heatherington, E. M. (Vol. ed.), *Handbook of Child Psychology: Vol. 4. Socialization, Personality, and Social Development*, Wiley, New York.
- Mantzicopoulos, P. (2005). Conflictual relationships between kindergarten children and their teachers: Associations with child and classroom context variables. *Journal of School Psychology, 43*(5), 425–442.
<https://doi.org/10.1016/j.jsp.2005.09.004>
- McEachern, A. D., Dishion, T. J., Weaver, C. M., Shaw, D. S., Wilson, M. N., & Gardner, F. (2012). Parenting Young Children (PARYC): Validation of a self-report parenting measure. *Journal of Child and Family Studies, 21*(3), 498-511. (slightly modified)
- Miner, J. L. & Clarke-Stewart, K. A. (2008). Trajectories of externalizing behavior from age 2 to age 9: Relations with gender, temperament, ethnicity, parenting, and rater. *Developmental Psychology, 44*(3), 771–786.
<https://doi.org/10.1037/0012-1649.44.3.771>
- Munoz-Silva, A., Lago-Urbano, R., & Sanchez-Garcia, M. (2017). Family impact and parenting styles in families of children with ADHD. *Journal of Child and Family Studies, 26*(10), 2810-2823.
- Moore, K., Garbacz, S., Gau, J., Dishion, T., Brown, K., Stormshak, E., & Seeley, J. (2016). Proactive parent engagement in public schools: Using a brief strengths and needs assessment in a multiple-gating risk management strategy. *Journal of Positive Behavior Interventions, 18*(4), 230-240.

- Pearl, A. M., French, B. F., Dumas, J. E., Moreland, A. D., & Prinz, R. (2014). Bidirectional effects of parenting quality and child externalizing behavior in predominantly single parent, under-resourced African American families. *Journal of Child and Family Studies*, 23(2), 177–188. <https://doi.org/10.1007/s10826-012-9692-z>
- People Keep (May 8, 2015). *2015 Federal Poverty Line (FPL) Guidelines*. People Keep. <https://www.peoplekeep.com/blog/federal-poverty-line-fpl-guidelines-2015-0>
- Paschall, K. W., Gonzalez, H., Mortensen, J. A., Barnett, M. A., & Mastergeorge, A. M. (2015). Children's negative emotionality moderates influence of parenting styles on preschool classroom adjustment. *Journal of Applied Developmental Psychology*, 39, 1–13. <https://doi.org/10.1016/j.appdev.2015.04.009>
- Pettit, G., Yu, T., Dodge, K., & Bates, J. (2009). A developmental process analysis of cross-generational continuity in educational attainment. *Merrill-Palmer Quarterly*, 55(3), 250-284.
- Pianta, R. C. (2001). Student-Teacher Relationship Scale: Professional manual. Odessa, FL: Psychological Assessment Resources.
- Pianta, R. C., & Nimetz, S. L. (1991). Relationships between children and teachers: Associations with classroom and home behavior. *Journal of Applied Developmental Psychology*, 12, 379-393.
- Puff, J., & Renk, K. (2014). Relationships among parents' economic stress, parenting, and young children's behavior problems. *Child Psychiatry and Human Development*, 45(6), 712-727.
- Raviv, T., Kessenich, M., & Morrison, F. (2004). A mediational model of the association between socioeconomic status and three-year-old language abilities: The role of parenting factors. *Early Childhood Research Quarterly*, 19(4), 528-547.
- Rescorla, L. A., Bochicchio, L., Achenbach, T. M., Ivanova, M. Y., Almqvist, F., Begovac, I., Bilenberg, N., Bird, H., Dobrea, A., Erol, N., Fombonne, E., Fonseca, A., Frigerio, A., Fung, D. S. S., Lambert, M. C., Leung, P. W. L., Liu, X., Marković, I., Markovic, J., ... Verhulst, F. C. (2014). Parent-teacher agreement on children's problems in 21 societies. *Journal of Clinical Child and Adolescent Psychology*, 43(4), 627–642. <https://doi.org/10.1080/15374416.2014.900719>
- Roubinov, D. S., Boyce, W. T., & Bush, N. R. (2020). Informant-specific reports of peer and teacher relationships buffer the effects of harsh parenting on children's oppositional defiant disorder during kindergarten. *Development and Psychopathology*, 32(1), 163–174. <https://doi.org/10.1017/S0954579418001499>

- Ruberry, E. J., Klein, M. R., Kiff, C. J., Thompson, S. F., & Lengua, L. J. (2018). Parenting as a moderator of the effects of cumulative risk on children's social-emotional adjustment and academic readiness. *Infant and Child Development*, 27(3), e2071–n/a. <https://doi.org/10.1002/icd.2071>
- Sanders, M. R., & Woolley, M. L. (2005). The relationship between maternal self-efficacy and parenting practices: Implications for parent training. *Child: Care, Health & Development*, 31, 65–73. <https://doi.org/10.1111/j.1365-2214.2005.00487.x>
- Schofield, T. J. (2016). Knowing what we don't know: A meta-analysis of children raised by gay or lesbian parents. *The Winnower*. DOI: 10.15200/winn.147568.84110.
- Schroeder, R. D., & Mowen, T. J. (2014). Parenting style transitions and delinquency. *Youth & Society*, 46(2), 228–254. <https://doi.org/10.1177/0044118X12469041>
- Serbin, L. A., Kingdon, D., Ruttle, P. L., & Stack, D. M. (2015). The impact of children's internalizing and externalizing problems on parenting: Transactional processes and reciprocal change over time. *Development and Psychopathology*, 27(4), 969–986. <https://doi.org/10.1017/S0954579415000632>
- Shen, J., Zhang, N., Zhang, C., Caldarella, P., Richardson, M. J., & Shatzer, R. H. (2009). Chinese elementary school teachers' perceptions of students' classroom behaviour problems. *Educational Psychology (Dorchester-on-Thames)*, 29(2), 187–201. <https://doi.org/10.1080/01443410802654909>
- Shumow, L., Vandell, D. L., & Posner, J. K. (1998). Harsh, firm, and permissive parenting in low-income families: Relations to children's academic achievement and behavioral adjustment. *Journal of Family Issues*, 19(5), 483–507. <https://doi.org/10.1177/019251398019005001>
- Spera, C. (2005). A review of the relationship among parenting practices, parenting styles, and adolescent school achievement. *Educational Psychology Review*, 17(2). DOI: 10.1007/s10648-005-3950-1
- Stormshak, E., DeGarmo, D., Garbacz, S. A., McIntyre, L. L., & Caruthers, A. (2021). Using motivational interviewing to improve parenting skills and prevent problem behavior during the transition to kindergarten. *Prevention Science*, 22(6), 747–757. <https://doi.org/10.1007/s11121-020-01102-w>
- Tancred, E., & Greeff, A. (2015). Mothers' parenting styles and the association with family coping strategies and family adaptation in families of children with ADHD. *Clinical Social Work Journal*, 43(4), 442–451.

- Wang, S., Hu, B. Y., LoCasale-Crouch, J., & Li, J. (2021). Supportive parenting and social and behavioral development: Does classroom emotional support moderate? *Journal of Applied Developmental Psychology*, 77, 101331. <https://doi.org/10.1016/j.appdev.2021.101331>
- Webster-Stratton, C. (2005). *The incredible years: A trouble-shooting guide for parents of children aged 2-8 years* (Fully revised with new chapters. ed.). Seattle: Incredible Years.
- Welchons, L. W. & McIntyre, L. L. (2015). The transition to kindergarten: Predicting socio-behavioral outcomes for children with and without disabilities. *Early Childhood Education Journal*, 45(1), 83–93.
<https://doi.org/10.1007/s10643-015-0757-7>
- Wood, J., McLeod, B., Sigman, M., Hwang, W., & Chu, B. (2003). Parenting and childhood anxiety: Theory, empirical findings, and future directions. *Journal of Child Psychology and Psychiatry*, 44(1), 134-151.
- Woolfson, L., & Grant, E. (2006). Authoritative parenting and parental stress in parents of pre-school and older children with developmental disabilities. *Child: Care, Health and Development*, 32(2), 177-184.
- Zaidman-Zait, A., Mirenda, P., Duku, E., Szatmari, P., Georgiades, S., Volden, J., Zwaigenbaum, L., Vaillancourt, T., Bryson, S., Smith, I., Fombonne, E., Roberts, W., Waddell, C., & Thompson, A. (2014). Examination of bidirectional relationships between parent stress and two types of problem behavior in children with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 44(8), 1908–1917.
<https://doi.org/10.1007/s10803-014-2064-3>

Table 1

Demographic Information for Parents and Children (N = 321)

Parents		Children	
Characteristic	% or <i>M</i> (<i>SD</i>)	Characteristic	% or <i>M</i> (<i>SD</i>)
Age (years)	33.90 (6.32)	Age (years)	5.45 (0.50)
% Female	89.40	% Male	54.20
% White	72.90	% White	58.90
% Hispanic	13.70	% Hispanic	13.40
% \geq Partial College	61.30	% IEP/504 Plan	16.50
% Employed full-time	42.40	SDQ total score	6.69 (5.31)
PSS	1.44 (0.53)	Strengths and Needs	5.48 (6.45)

Note. PSS = Perceived Stress Scale, SDQ = Strengths and Difficulties Questionnaire, Strengths and Needs = Positive Family Support, Strengths and Needs Assessment.

Table 2

Criteria for Categorizing Participants into each Parenting Style

Parenting Style	High	Low
Authoritarian	Limit-setting <i>or</i> Monitoring	Positive Parenting <i>or</i> Parenting Warmth
Authoritative	Limit-setting <i>or</i> Monitoring <i>and</i> Positive Parenting <i>and</i> Parenting Warmth	
Permissive	Positive Parenting <i>or</i> Parenting Warmth	Limit-setting <i>or</i> Monitoring
Uninvolved		Limit-setting <i>and</i> Monitoring <i>and</i> Positive Parenting <i>and</i> Parenting Warmth

Table 3

Results Comparing Family Characteristics, Parenting Stress, and Child Problem Behaviors across Parenting Styles

	Authoritarian (<i>n</i> = 66)		Authoritative (<i>n</i> = 104)		Permissive (<i>n</i> = 112)		Uninvolved (<i>n</i> = 39)		Test Statistic	<i>p</i>
Variable	<i>n</i> (%)	<i>M</i> (<i>SD</i>)	<i>n</i> (%)	<i>M</i> (<i>SD</i>)	<i>n</i> (%)	<i>M</i> (<i>SD</i>)	<i>n</i> (%)	<i>M</i> (<i>SD</i>)		
Primary caregiver is White (versus Non-White)	52 (78.8)		69 (66.3)		83 (74.1)		30 (76.9)		3.79	.285
Household income above \$50k (versus below)	38 (57.6)		64 (61.5)		61 (54.5)		14 (35.9)		7.75	.051
Primary caregiver education (some college versus high school or less)	46 (69.7)		60 (57.7)		66 (58.9)		25 (64.1)		2.99	.394
Child receives special education services (versus not)	10 (45.5)		15 (46.9)		19 (45.2)		9 (40.9)		0.20	.978
Parenting stress		1.50 (.46) _{abd}		1.25 (.47) _c		1.48 (.59) _{bd}		1.73 (.49) _a	9.12*	.000
Child problem behaviors		7.21 (5.07) _c		4.45 (4.60) _b		7.26 (5.21) _c		10.10 (5.45) _a	13.59*	.000

Note. Test statistic = X^2 for the categorical variables and F for the continuous parenting stress variable. Percentages or means that share the same subscript within rows are not statistically significantly different, while unique subscripts are statistically significantly different at $p < .05$.
 $p < .001^*$.

Table 4

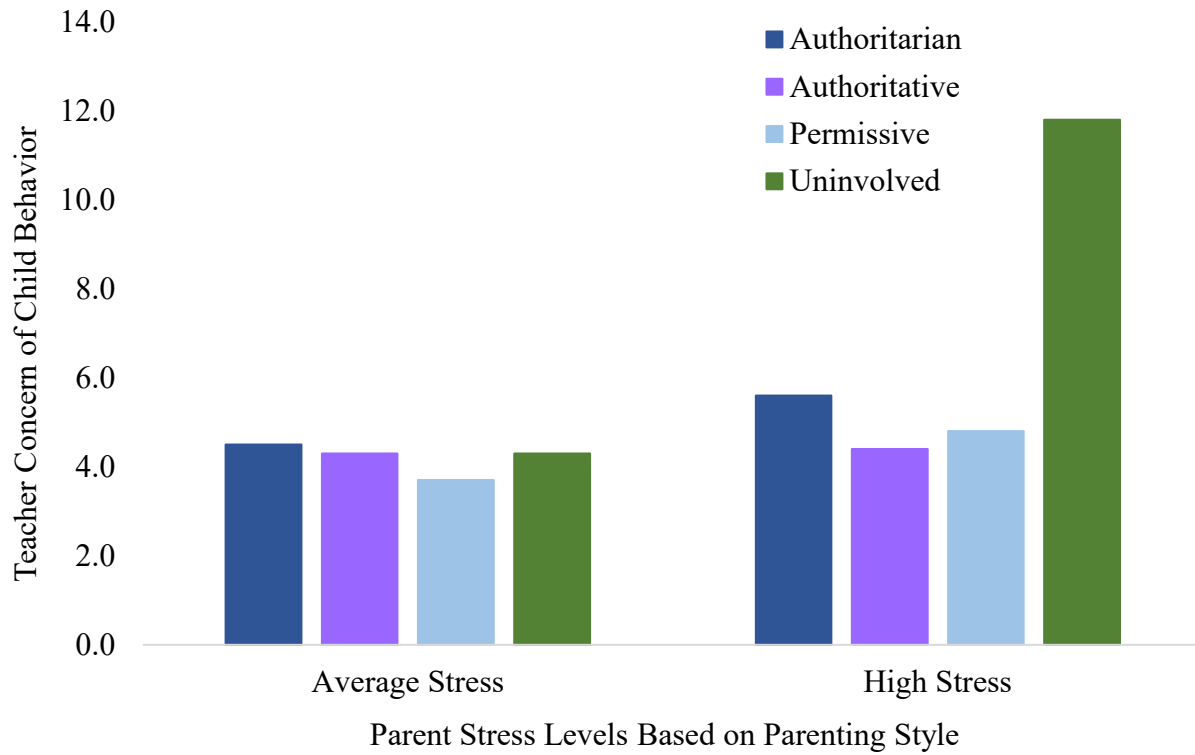
Results of One-Way ANOVA for Comparing Parenting Styles on Teacher Reported Child Problem Behaviors

	Authoritarian (<i>n</i> = 66)	Authoritative (<i>n</i> = 104)	Permissive (<i>n</i> = 112)	Uninvolved (<i>n</i> = 39)		
Variable	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>F</i>	<i>p</i>
Behavior Problems	6.1 (7.0) _{cd}	4.4 (5.6) _{abd}	4.9 (5.7) _{bd}	8.7 (8.1) _c	4.08	.007

Note. Values represent means and standard deviations of child outcomes for each parenting style. Values that share the same subscript within rows are not statistically significantly different, while unique subscripts are statistically significant ($p < .05$).

Figure 1

Teacher Concern of Child Behaviors for Different Parenting Style Groups with Average or High Levels of Parenting Stress



Note. Teacher concern reported with raw scores ($M = 5.4$, $SD = 6.4$, maximum possible score = 27).